Operator dialogue terminals

Magelis display units with 2 line alphanumeric screen

Characteristics

References :
page 9
Dimensions, mounting :
page 30

Type of display unit		**XBT-H0●2●10 (fluorescent)**			**XBT-H811050 (LCD)**	**XBT-H0●1010 (back-lit LCD)**		

Environment

Conforming to standards		IEC 1131-2, IEC 68-2-6, IEC 68-2-27, EN 61131-2, UL 508, CSA C22-2 no. 14	
Product certifications		CE, UL, CSA	
Temperature	Operation	0…+ 50 °C	
	Storage	- 40…+ 70 °C	- 20…+ 60 °C
Degree of protection		IP 65, conforming to IEC 529, Nema 4	

Mechanical characteristics

Mounting and fixing		Flush-mounted, fixed with 4 or 6 screws (supplied) pressure-mounted (on a 1 to 6 mm thick panel)						
Material	Enclosure	Polyphenyl oxide, 10 % glass fibre (PPO GFN1 SE1)						
	Keypad	Anti-UV treated toughened polyester (Autoflex EB AG)						
Keys	**XBT-H**	**002010**	**022010**	**012●10**	**811050**	**001010**	**021010**	**011010**
		No key	4 function keys + 1 service key	5 service keys	5 service keys	No key	4 function keys + 1 service key	5 service keys

Electrical characteristics

Display unit		Fluorescent green matrix characters (5 x 7 pixels) - 2 lines of 20 characters, height 5 mm	LCD (5 x 7 pixels) - 2 lines of 20 characters, height 9 mm	Back-lit LCD (5 x 7 pixels) - 2 lines of 20 characters, height 9 mm
Power supply	Voltage	⎓ 24 V not isolated	⎓ 24 V not isolated (during configuration) ⎓ 5 V via TSX Nano/Micro/Premium PLC terminal port (during operation)	⎓ 24 V not isolated
	Voltage limits	18…30 V		
	Ripple	5 % maximum		
Consumption		10 W	1.5 W	10 W

Operating characteristics

Signalling	**XBT-H**	**002010**	**022010**	**012●10**	**811050**	**001010**	**021010**	**011010**
		1 LED	6 LEDs	4 LEDs	–	1 LED	6 LEDs	4 LEDs
Memory		- 128 Kb Flash EPROM, 256 Kb (**XBT-H012110**) - 200 application pages approximately (2 lines per page) - 256 available alarm pages (2 lines per page)			- 128 Kb Flash EPROM - 100 application pages approximately (2 lines per page) - 128 available alarm pages (2 lines per page)	- 128 Kb Flash EPROM, 256 Kb (**XBT-H011010**) - 200 application pages approximately (2 lines per page) - 256 available alarm pages (2 lines per page)		
Log function		Possibility of storing alarm pages (**XBT-H012110**)			–	–		
Transmission (asynchronous serial link)		RS 232 C/RS 485/RS 422			RS 232 C/RS 485	RS 232 C/RS 485/RS 422		
Downloadable protocol		Multiple (see pages 6 and 28)			Uni-Telway (see pages 6 and 28)	Multiple (see pages 6 and 28)		
Real-time clock		Access to the PLC real-time clock						
Printer port (asynchronous serial link)		RS 232 C (**XBT-H012110**)			–	–		
Connection	Power supply	Plug-in terminal block 3 screw terminals (5.08 mm pitch) Max. clamping capacity : 1.5 mm²						
	Serial port	Female 25-way SUB-D connector						
	Printer port	Male 9-way SUB-D connector			–	–		

Operator dialogue terminals

Magelis display units with 2 line alphanumeric screen

References

Characteristics :
page 8
Dimensions, mounting :
page 30

Display units with 2 lines of 20 characters (fluorescent)

XBT-H02●010

Downloadable exchange protocol	Number of keys Funct.	Service	Num.	Supply voltage V ⎓	Language version	Reference	Weight kg
No printer port, no log							
See page 28	–	–	–	24	Multilingual	**XBT-H002010**	0.600
	4	1	–	24	Multilingual	**XBT-H022010**	0.600
	–	5	–	24	Multilingual	**XBT-H012010**	0.600

XBT-H01●●10

With printer port, with log							
See page 28	–	5	–	24	Multilingual	**XBT-H012110**	0.600

Display unit with 2 lines of 20 characters (LCD)

XBT-H00●010

No printer port, no log							
Uni-Telway See page 28	–	5	–	24 and 5 via terminal socket on the TSX Nano/ Micro/ Premium PLC	Multilingual	**XBT-H811050**	0.600

Display units with 2 lines of 20 characters (back-lit LCD)

No printer port, no log							
See page 28	–	–	–	24	Multilingual	**XBT-H001010**	0.600
	4	1	–	24	Multilingual	**XBT-H021010**	0.600
	–	5	–	24	Multilingual	**XBT-H011010**	0.600

Separate parts

Description	Use	Reference	Weight kg
Development software	Under Windows 3.1 or 95, for downloading the application and protocols	See page 27	–
Connecting cables	Connection to PLCs, configuration terminals, etc.	See page 29	–

Documentation

Description	Format	Included in the product	Reference (1)	Weight kg
Magelis user's manual	A5 bound	XBT-L1003● and XBT-L1004●	**XBT-X000●●**	0.200

(1) Add the following suffixes **EN** : English, **FR** : French, **DE** : German, **ES** : Spanish, **IT** : Italian.

Operator dialogue terminals

Magelis display units with 2 line alphanumeric screen

Characteristics

References :
page 11
Dimensions, mounting :
page 30

Type of terminal		**XBT-P0●2●10 (fluorescent)**		**XBT-P0●1●10 (back-lit LCD)**	

Environment

Conforming to standards		IEC 1131-2, IEC 68-2-6, IEC 68-2-27, EN 61131-2, UL 508, CSA C22-2 no. 14	
Product certifications		CE, UL, CSA	
Temperature	Operation	0...+ 50 °C	
	Storage	- 40...+ 70 °C	- 20...+ 60 °C
Degree of protection		IP 65, conforming to IEC 529, Nema 4	

Mechanical characteristics

Mounting and fixing		Flush-mounted, fixed with 4 or 6 screws (supplied) pressure-mounted (on a 1 to 6 mm thick panel)			
Material	Enclosure	Polyphenyl oxyde, 10% glass fibre (PPO GFN1 SE1)			
	Keypad	Anti-UV treated toughened polyester (Autoflex EB AG)			
		XBT-P012010	**XBT-P022●10**	**XBT-P011010**	**XBT-P021●10**
Keys		8 function keys + 9 service keys	12 function keys + 10 service keys + 12 numeric keys	8 function keys + 9 service keys	12 function keys + 10 service keys + 12 numeric keys

Electrical characteristics

Display unit		Fluorescent green matrix characters (5 x 7 pixels), 2 lines of 20 characters, height 5 mm	Back-lit LCD (5 x 7 pixels), 2 lines of 20 characters, height 9 mm
Power supply	Voltage	⎓ 24 V not isolated	
	Voltage limits	18...30 V	
	Ripple	5 % maximum	
Consumption		10 W	

Operating characteristics

		XBT-P012010	**XBT-P022●10**	**XBT-P011010**	**XBT-P021●10**
Signalling		17 LEDs	21 LEDs	17 LEDs	21 LEDs
Memory		- 256 Kb Flash EPROM - 400 application pages approximately (2 lines per page) - 256 available alarm pages (2 lines per page)			
Log function		Possibility of storing alarm pages (**XBT-P022110**)		Possibility of storing alarm pages (**XBT-P021110**)	
Transmission (asynchronous serial link)		RS 232 C/RS 485/RS 422			
Downloadable protocol		Multiple (see pages 6 and 28)			
Real-time clock		Access to the PLC real-time clock			
Printer port (asynchronous serial link)		RS 232 C (**XBT-P022110**)		RS 232 C (**XBT-P021110**)	
Connection	Power supply	Plug-in terminal block 3 screw terminals (5.08 mm pitch) Max. clamping capacity : 1.5 mm^2			
	Serial port	Female 25-way SUB-D connector			
	Printer port	Male 9-way SUB-D connector			

Operator dialogue terminals

Magelis display units with 2 line alphanumeric screen

References

Characteristics :
page 10
Dimensions, mounting :
page 30

Terminals with 2 line display of 20 characters (fluorescent)

Downloadable exchange protocol	Number of keys Funct.	Service	Num.	Supply voltage V ⎓	Language version	Reference	Weight kg
No printer port, no log							
See page 28	8	9	–	24	Multilingual	**XBT-P012010**	0.800
	12	10	12	24	Multilingual	**XBT-P022010**	0.800
With printer port and log							
See page 28	12	10	12	24	Multilingual	**XBT-P022110**	0.800

XBT-P01●010

XBT-P02●●10

Terminals with 2 line display of 20 characters (back-lit LCD)

Downloadable exchange protocol	Number of keys Funct.	Service	Num.	Supply voltage V ⎓	Language version	Reference	Weight kg
No printer port, no log							
See page 28	8	9	–	24	Multilingual	**XBT-P011010**	0.800
	12	10	12	24	Multilingual	**XBT-P021010**	0.800
With printer port and log							
See page 28	12	10	12	24	Multilingual	**XBT-P021110**	0.800

Separate parts

Description	Use	Reference	Weight kg
Development software	Under Windows 3.1 or 95, for downloading the application and protocols	See page 27	–
Connecting cables	Connection to PLCs, configuration terminals, etc.	See page 29	–

Documentation

Description	Format	Included in the product	Reference (1)	Weight kg
Magelis user's manual	A5 bound	XBT-L1003● and XBT-L1004●	**XBT-X000●●**	0.200

(1) Add the following suffixes **EN** : English, **FR** : French, **DE** : German, **ES** : Spanish, **IT** : Italian.

Operator dialogue terminals

Magelis terminals with 2 or 4 line alphanumeric screen

Characteristics

References :
page 13
Dimensions, mounting :
page 30

Type of terminal		**XBT-E014●10/XBT-E016●10 (fluorescent)**	**XBT-E013●10/XBT-E015●10 (back-lit LCD)**

Environment

Conforming to standards		IEC 1131-2, IEC 68-2-6, IEC 68-2-27, EN 61131-2, UL 508, CSA C22-2 no. 14	
Product certifications		CE, UL, CSA	
Temperature	Operation	0…+ 50 °C	
	Storage	- 40…+ 70 °C	- 20…+ 60 °C
Degree of protection		IP 65, conforming to IEC 529, Nema 4	

Mechanical characteristics

Mounting and fixing		Flush-mounted, fixed with 4 or 6 screws (supplied) pressure-mounted (on a 1 to 6 mm thick panel)	
Material	Enclosure	Polyphenyl oxyde, 10% glass fibre (PPO GFN1 SE1)	
	Keypad	Anti-UV treated toughened polyester (Autoflex EB AG)	
Keys	Function	24	
	Service	10	
	Alphanumeric	12	

Electrical characteristics

Display unit		Fluorescent green matrix characters (5 x 7 pixels)		Back-lit LCD (5 x 7 pixels)	
		XBT-E014●10	**XBT-E016●10**	**XBT-E013●10**	**XBT-E015●10**
		2 lines of 40 characters, height 5 mm	4 lines of 40 characters, height 5 mm	2 lines of 40 characters, height 5 mm	4 lines of 40 characters, height 5 mm
Power supply	Voltage	⎓ 24 V not isolated			
	Voltage limits	18…30 V			
	Ripple	5 % maximum			
Consumption		20 W		10 W	

Operating characteristics

Signalling		33 LEDs + 1 buzzer	
Memory		- 384 Kb Flash EPROM - 800 application pages approximately (2 lines per page) - 256 available alarm pages (2 lines per page) - 400 application pages approximately (4 lines per page) - 128 available alarm pages (4 lines per page)	
Log function		Possibility of storing alarm pages	
Transmission (asynchronous serial link)		RS 232 C/RS 485/RS 422	
Downloadable protocol		Multiple (see pages 6 and 28)	
Real-time clock		Incorporated	
Printer port (asynchronous serial link)		RS 232 C (**XBT-E014110/XBT-E016110**)	RS 232 C (**XBT-E013110/XBT-E015110**)
Alarm relay		1 N/O contact (min 1 mA/⎓ 5 V, max 0.5 A/⎓ 24 V)	
Connection	Power supply and alarm relay	Plug-in terminal block 5 screw terminals (5.08 mm pitch) Max. clamping capacity : 1.5 mm^2	
	Serial port	Female 25-way SUB-D connector	
	Printer port	Male 9-way SUB-D connector	

Operator dialogue terminals

Magelis terminals with 2 or 4 line alphanumeric screen

References

Characteristics :
page 12
Dimensions, mounting :
page 30

Terminals with 2 line display of 40 characters (fluorescent)

XBT-E014●10

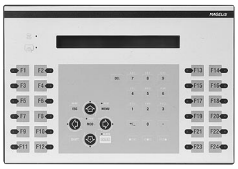
Downloadable exchange protocol	Number of keys Funct.	Service	Alphanum.	Supply voltage V ⎓	Language version	Reference	Weight kg
No printer port, no log							
See page 28	24	10	12	24	Multilingual	**XBT-E014010**	1.000
With printer port and log							
See page 28	24	10	12	24	Multilingual	**XBT-E014110**	1.000

Terminals with 4 line display of 40 characters (fluorescent)

XBT-E016●10

No printer port, no log							
See page 28	24	10	12	24	Multilingual	**XBT-E016010**	1.000
With printer port and log							
See page 28	24	10	12	24	Multilingual	**XBT-E016110**	1.000

Terminals with 2 line display of 40 characters (back-lit LCD)



XBT-E013●10

No printer port, no log							
See page 28	24	10	12	24	Multilingual	**XBT-E013010**	1.000
With printer port and log							
See page 28	24	10	12	24	Multilingual	**XBT-E013110**	1.000

Terminals with 4 line display of 40 characters (back-lit LCD)

XBT-E015●10

No printer port, no log							
See page 28	24	10	12	24	Multilingual	**XBT-E015010**	1.000
With printer port and log							
See page 28	24	10	12	24	Multilingual	**XBT-E015110**	1.000

Separate parts

Description	Use	Reference	Weight kg
Development software	Under Windows 3.1 or 95, for downloading the application and protocols	See page 27	–
Connecting cables	Connection to PLCs, configuration terminals, etc.	See page 29	–

Documentation

Description	Format	Included in the product	Reference (1)	Weight kg
Magelis user's manual	A5 bound	XBT-L1003● and XBT-L1004●	**XBT-X000●●**	0.200

(1) Add the following suffixes **EN** : English, **FR** : French, **DE** : German, **ES** : Spanish, **IT** : Italian.

Magelis display units with 8 line matrix screen

Characteristics

References :
page 15
Dimensions, mounting :
page 30

Type of display unit		**XBT-HM0●7●10 (back-lit LCD)**

Environment

Conforming to standards		IEC 1131-2, IEC 68-2-6, IEC 68-2-27, EN 61131-2, UL 508, CSA C22-2 no. 14
Product certifications		CE, UL, CSA
Temperature	Operation	0…+ 45 °C
	Storage	- 20…+ 60 °C
Degree of protection		IP 65, conforming to IEC 529, Nema 4

Mechanical characteristics

Mounting and fixing		Flush-mounted, fixed with spring clips (supplied) pressure-mounted (on a 1 to 6 mm thick panel)		
Material	Enclosure	Polyphenyl oxide, 10 % glass fibre (PPO GFN1 SE1)		
	Keypad	Anti-UV treated toughened polyester (Autoflex EB AG)		
Keys		**XBT-HM007010** No keys	**XBT-HM027010** 4 function keys + 1 service key	**XBT-HM017●10** 5 service keys

Electrical characteristics

Display unit		Back-lit LCD (240 x 64 pixels) - 8 lines of 40 characters (height 5.3 mm) single size, - 4 lines of 20 characters (height 10.6 mm) double height, double width
Power supply	Voltage	⎓ 24 V not isolated
	Voltage limits	18…30 V
	Ripple	5 % maximum
Consumption		15 W

Operating characteristics

Signalling		**XBT-HM007010** 1 LED	**XBT-HM027010** 6 LEDs	**XBT-HM017●10** 4 LEDs
Memory		- 384 Kb Flash EPROM - 600 application pages approximately (8 lines per page) - 256 available alarm pages (2 lines per page)		
Transmission (asynchronous serial link)		RS 232 C/RS 485/RS 422		
Downloadable protocol		Multiple (see pages 6 and 28)		
Real-time clock		Access to the PLC real-time clock		
Printer port (asynchronous serial link)		RS 232 C (**XBT-HM017110**)		
Connection	Power supply	Plug-in terminal block 3 screw terminals (5.08 mm pitch) Max clamping capacity : 1.5 mm^2		
	Serial port	Female 25-way SUB-D connector		
	Printer port	Male 9-way SUB-D connector		

Operator dialogue terminals

Magelis display units with 8 line matrix screen

References

Characteristics :
page 14
Dimensions, mounting :
page 30

Display units with 8 line matrix screen of 40 characters (back-lit LCD)

Downloadable exchange protocol	Number of keys Funct.	Service	Num.	Supply voltage V ⎓	Language version	Reference	Weight kg
No printer port, no log							
See page 28	–	–	–	24	Multilingual	**XBT-HM007010**	0.600
	4	1	–	24	Multilingual	**XBT-HM027010**	0.600
	–	5	–	24	Multilingual	**XBT-HM017010**	0.600
With printer port, with log							
See page 28	–	5	–	24	Multilingual	**XBT-HM017110**	0.600

XBT-HM007010

XBT-HM027010

XBT-HM017●10

Separate parts

Description	Use	Reference	Weight kg
Development software	Under Windows 95 or NT 4.●, for downloading the application and protocols	See page 27	–
Connecting cables	Connection to PLCs, configuration terminals, etc	See page 29	–

Documentation

Description	Format	Included in the product	Reference (1)	Weight kg
Magelis user's manual	A5 bound	XBT-L1003● and XBT-L1004●	**XBT-X000●●**	0.200

(1) Add the following suffixes **EN** :English, **FR** : French, **DE** : German, **ES** : Spanish, **IT** : Italian.

Operator dialogue terminals

Magelis terminals with graphic screen

Characteristics :
pages 20 and 22
References:
pages 21 and 23
Dimensions :
page 31

General

Presentation

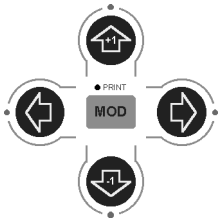
XBT-F01/F03 XBT-F02/F03 TXBT-F02/F03

Graphic screen operator dialogue terminals are available with 5" or 10" screens, in monochrome or colour, with a keypad or a touch-sensitive screen.

XBT-F graphic screen terminals are specially designed for operator dialogue graphic functions.

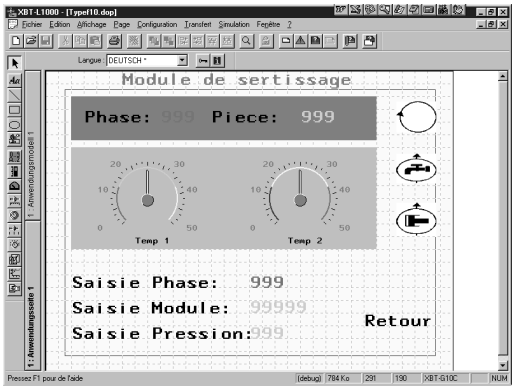
TXBT-F graphic stations operate under Windows 95, enabling them to access other control system functions.

Operation



All Magelis graphic screen terminals have the same user interface : static and soft function keys, service keys, alphanumeric keys.

Configuration



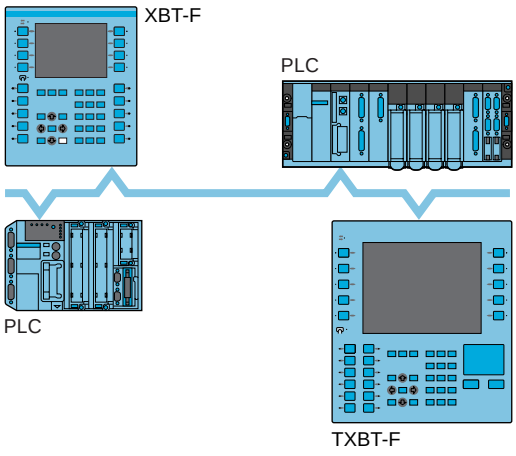
Magelis graphic screen terminals can be configured using the same XBT-L100● software in a Windows environment.

XBT-L100● software provides graphic screen terminals with a library of animated graphic objects such as bargraphs, volume indicator meters, selectors, potentiometers and trending curves.

The variable for animating an object can be selected directly from a list of symbols given by the PL7 or Concept software.

The application program for the graphic terminals is stored on a PCMCIA memory card.

Communication



XBT-F and TXBT-F graphic screen terminals communicate with PLCs via an integrated point-to-point or multidrop serial link, or via a fieldbus with a PCMCIA type III card.

The communication protocols are those used by Schneider Group PLCs as well as those of the other main market suppliers.

Characteristics :
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References :
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Dimensions :
page 31

Functions

Functions

XBT-F and TXBT-F graphic screen operator dialogue terminals have the following functions :
- Display of animated synoptic screens, control, modification of numeric and alphanumeric variables
- Display of a service line (status and alarm bar) with the current time
- Dynamic visualisation of operating data (setpoints, measurements, recipes, maintenance messages) and process errors
- Control via soft or static function keys
- Scaling of analogue variables
- Real-time and trending curves
- Alarm log and management of alarm groups
- Management of help pages, form pages, recipe pages
- Pages can be called by the user or by the PLC
- Three levels of password
- Printing of form pages, date-stamped log and alarms
- Communication protocol application support in the PCMCIA type II application memory card

The role of the function keys is defined using the XBT-L100●● software. Modifications cannot be made during operation. Each function key can be associated with an internal bit of the PLC application.

Static function keys

Static function keys are defined for the whole application.
They can be used for :
- Access to a page
- Pulse a PLC memory bit
- Latch a PLC memory bit

Static keys can be marked with re-usable labels.

Soft function keys

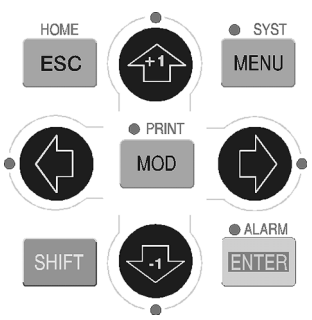
Soft function keys are associated with a page. Their role can differ from one page to another.
They can perform the following functions :
- Access to a page
- Pulse a PLC memory bit
- Latch a PLC memory bit
- Access to the modification of a value

Each soft key can be assigned a label or icon displaying its function.

Service keys

Service keys are the “arrow” keys and the control keys and are used for modifying the parameters of the control system. The control keys are used to perform the following actions :

ENTER	Confirm a selection or entry, acknowledge an alarm
MOD	Change to the mode for entering pages, passwords, fields or graphic objects
ESC	Cancel an entry, suspend or stop a current action. Display previous pages in succession. Quit the alarm display.
SHIFT	Access the second of the dual key functions
MENU	Access a menu containing the operating functions which do not have direct access keys
HOME	Return to the entry point of the current menu. Example : return to the first page of the application.
SYST	Access confidential mode which contains the implementation functions protected by a password
ALARM	View the alarms
PRINT	Print



The "arrow" keys can be used to :
- Change page within a menu
- Change fields on a page
- Select an object on a page
- Move around on a page
- Select the value of a digit
- Select a value from a list of choices
- When used with the **SHIFT** key, increment or decrement the value of a variable field

Magelis terminals with graphic screen

Characteristics :
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References :
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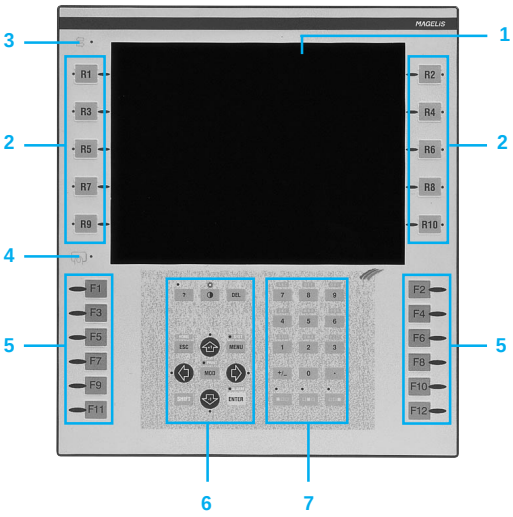
Dimensions :
page 31

Description

Front panel of XBT-F01/F02 keypad terminals



XBT-F01/F02 keypad terminals comprise on the front panel :

1 A monochrome or colour screen (5.7" or 9.5" or 10.4" depending on the model)

2 2 x 4 or 2 x 5 (depending on the model) soft function keys with indicator lights

3 A communication monitoring indicator light

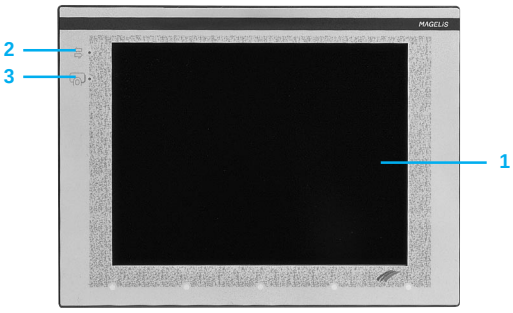
4 A keypad activity indicator light

5 2 x 5 or 2 x 6 (depending on the model) static function keys with indicator lights and re-usable labels

6 Twelve service keys with indicator lights

7 Twelve alphanumeric keys (0…9, +/-, .) associated with 3 alphabetical access keys (A…Z).

Front panel of XBT-F03 touch-sensitive screen terminals



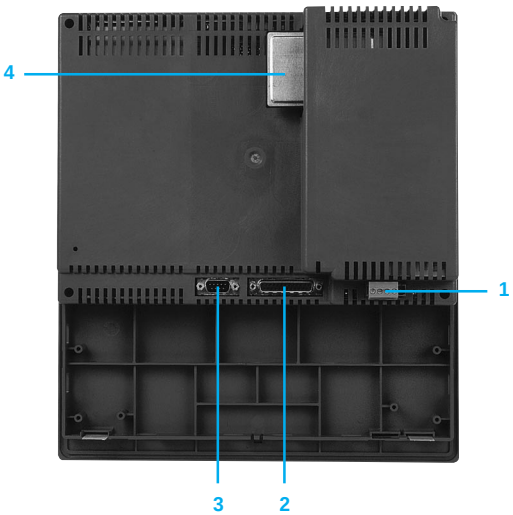
XBT-F03 touch-sensitive screen terminals comprise on the front panel :

1 A touch-sensitive colour screen (5.7" or 10.4" depending on the model)

2 A communication monitoring indicator light

3 A tactile feedback activity indicator light

Back panel of XBT-F graphic screen terminals



XBT-F graphic screen terminals comprise on the back panel :

1 A plug-in screw terminal for ⎓ 24 V power supply, and alarm relay connection

2 A female 25-way SUB-D connector for connection to PLCs

3 A male 9-way SUB-D connector for printer connection and for transferring applications from an FTX terminal or PC compatibles

4 Two slots for PCMCIA card :
- one type II for application memory
- one type III for connection to the communication architecture (bus or network)

Operator dialogue terminals

Magelis graphic stations

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References :
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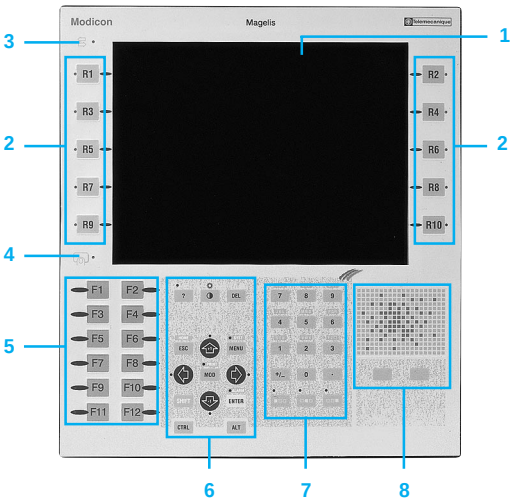
Description

Front panel of TXBT-F02 graphic keypad stations



TXBT-F02 graphic keypad stations comprise on the front panel :

1 A monochrome or colour screen (9.5" or 10.4" depending on the model).

2 2 x 5 soft function keys with indicator lights

3 A communication monitoring indicator light

4 A keypad activity indicator light

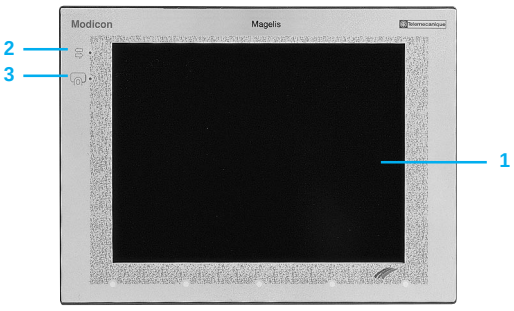
5 Twelve static function keys with indicator lights and re-usable labels

6 Fourteen service keys with indicator lights

7 Twelve alphanumeric keys (0…9, +/-, .) associated with 3 alphabetical access keys (A…Z).

8 A touch-sensitive pointing device

Front panel of TXBT-F03 graphic screen terminals with touch-sensitive screens



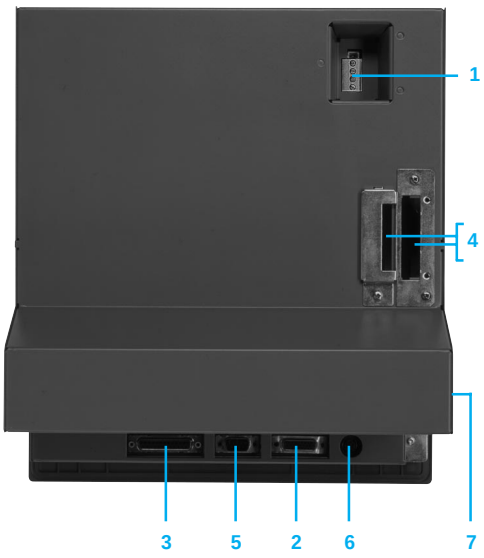
TXBT-F03 graphic screen terminals with touch-sensitive screens comprise on the front panel :

1 A touch-sensitive colour screen (10.4").

2 A communication monitoring indicator light

3 A tactile feedback activity indicator light

Front panel of TXBT-F graphic stations



TXBT-F graphic stations comprise on the front panel :

1 A plug-in screw terminal for ⎓ 24 V power supply, and alarm relay connection

2 A female 26-way SUB-D high-density connector for PLC connection, with a T CCX CB 10 cable (length 0.2 m) supplied, fitted with 1 male 26-way SUB-D high-density connector and 1 female 25-way SUB-D connector

3 A female 25-way SUB-D connector for parallel printer connection or external CD drive

4 Two slots for PCMCIA card :
- one type II (1)
- one type III

5 A male 9-way SUB-D 9 connector for connecting an FTX configuration terminal or a PC compatible

6 An 8-way mini-DIN socket for connecting a PS/2 compatible external keyboard

7 Two standard IBM PC slots (ISA bus), 2/3 format (depending on the model).

(1) The operator dialogue application memory can be supported by a PCMCIA type II card (10 Mb maximum) or by the internal hard disk (2.1 Gb).

Operator dialogue terminals

Magelis terminals with graphic screen

Characteristics

References : page 21
Dimensions : page 31

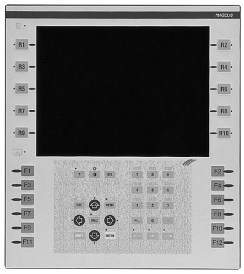
Type of terminal		XBT-F011	XBT-F032	XBT-F023/F024	XBT-F034
Environment					
Conforming to standards		IEC 1131-2, IEC 801-2 level 3, IEC 801-3 and IEC 801-4 level 3, IEC 68-2-6, IEC 68-2-27, UL 508, CSA			
Product certifications		CE, UL, CSA			
Temperature	Operation	0…+ 45 °C			
	Storage	- 20…+ 60 °C			
Relative humidity		0…85 % (no condensation)			
Degree of protection					
	Front panel	IP 65, conforming to IEC 529, Nema 4			
	Rear panel	IP 20, conforming to IEC 529			
Shock resistance		Conforming to IEC 68-2-27 ; semi-sinusoidal pulse 11 ms, 15 gn in the 3 axes			
Mechanical characteristics					
Mounting and fixing		Flush-mounted, fixed with spring clips (supplied) pressure-mounted (on a 1 to 6 mm thick panel)			
		10 spring clips	8 spring clips	12 spring clips	10 spring clips
Material	Front section	Polyphenyl oxide, 10 % glass fibre (PPO GFN1 SE 1)			
	Keypad	Anti-UV treated toughened polyester (Autoflex EB AG)			
	Enclosure	Polyphenyl oxide, 10 % glass fibre (PPO GFN1 SE 1)			
Keys	Soft keys	8 (with LED)	–	10 (with LED)	–
	Static keys	10 (with LED and re-usable labels)	–	12 (with LED and re-usable labels)	–
	Service keys	12	–	12	–
	Alphanumeric keys	12 + 3 for alphabetical access	–	12 + 3 for alphabetical access	–
Electrical characteristics					
LCD screen	Type	5.7" monochrome, back-lit with 16 levels of grey	5.7" STN 256 colours, back-lit with resistive matrix tactile feedback	**XBT-F023** : 9.5" monochrome, back-lit with 16 levels of grey **XBT-F024** : 10.4" TFT 256 colours	10.4" TFT 256 colours with resistive analogue tactile feedback
	Resolution	320 x 240 pixels		640 x 480 pixels	
Power supply	Voltage	⎓ 24 V not isolated			
	Limits	18…30 V, maximum ripple 5 %, maximum microbreaks 1 ms			
	Protection	Against polarity inversion and overloads			
Consumption		35 W			
Operating characteristics					
Signalling		1 communication monitoring LED and 1 keypad activity (or tactile feedback activity) LED and 11 LEDs associated with service and alphanumeric keys			
Operating system		Magelis			
Dynamic RAM memory		2.5 Mb			
Application memory		On 2 Mb PCMCIA II card (supplied), 4, 8 or 10 Mb			
Dialogue application					
	Maximum no. of pages	50 to 450 application, alarm, help, form and recipe pages depending on the memory card used		30 to 300 application, alarm, help, form and recipe pages depending on the memory card used	
	Curves	16 real-time curves		16 real-time curves	
Connections	PLC/ configuration PC	RS 232 C/RS 422/485 insulated serial link, downloadable communication protocols (see page 27 and page 28)			
	Printer	RS 232 C serial link			
	Bus or network	Slot for PCMCIA type III communication card depending on the model, communication protocols (see page 28)			
Real-time clock		Access to the PLC real-time clock			
Alarm relay		1 volt-free N/O contact, max 0.5 A ⎓/∿ 24 V			
Connection	Power supply and alarm relay	Plug-in terminal, 5 screw terminals (5.08 mm pitch) Max clamping capacity : 1.5 mm^2			
	PLC	Female 25-way SUB-D connector			
	Printer/ configuration PC	Male 9-way SUB-D connector			

Operator dialogue terminals

Magelis terminals with graphic screen

References

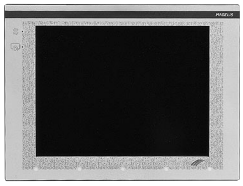
Characteristics : page 20
Dimensions: page 31



XBT-F024●10

Terminals with keypad

Downloadable exchange protocol	Type and size of screen	Supply voltage V ⎓	Type III slot for PCMCIA communication card	Reference	Weight kg
See page 27 and page 28	Monochrome 5.7"	24	No	**XBT-F011110**	1.800
			Yes	**XBT-F011310**	1.800
	Monochrome 9.5"	24	No	**XBT-F023110**	2.700
			Yes	**XBT-F023310**	2.700
	Colour 10.4"	24	No	**XBT-F024110**	2.700
			Yes	**XBT-F024310**	2.700



XBT-F034●10

Terminals with touch-sensitive screens

Downloadable exchange protocol	Type and size of screen	Supply voltage V ⎓	Type III slot for PCMCIA communication card	Reference	Weight kg
See page 27 and page 28	Colour 5.7"	24	No	**XBT-F032110**	1.600
			Yes	**XBT-F032310**	1.600
	Colour 10.4"	24	No	**XBT-F034110**	2.400
			Yes	**XBT-F034310**	2.400

Separate parts

Description	Use	Reference	Weight kg
Development software	Under Windows 95 or NT 4.●, for downloading the application and protocols	See page 27	–
PCMCIA type II memory cards	Application memory	See page 28	–
PCMCIA type III communication cards	Bus and industrial networks connection	See page 28	–
Connecting cables	Serial link, Uni-Telway bus, configuration terminal, printer connection	See page 29	–
Sheets of labels	Labels for function keys	See page 28	–

XBT-MEM02

Replacement parts

Description	Use	Memory size	Reference	Weight kg
PCMCIA type II memory card	XBT-F terminals	2 Mb	**XBT-MEM02**	0.100

Operator dialogue terminals

Magelis graphic stations

Characteristics

References :
page 23
Dimensions :
page 31

Type of graphic station		TXBT-F023	TXBT-F024	TXBT-F034

Environment

Conforming to standards		IEC 1131-2, IEC 801-2 level 3, IEC 801-3 and IEC 801-4 level 3, IEC 68-2-6, IEC 68-2-27, UL 508, CSA	
Product certifications		CE, UL, CSA	
Temperature	Operation	0…+ 45 °C	
	Storage	- 20…+ 60 °C	
Relative humidity		0…85 % (without condensation)	
Degree of protection			
	Front panel	IP 65, conforming to IEC 529, Nema 4	
	Rear panel	IP 20, conforming to IEC 529	
Shock resistance		Conforming to IEC 68-2-27 ; semi-sinusoidal pulse 11 ms, 15 gn in the 3 axes	

Mechanical characteristics

Mounting and fixing		Flush-mounted, fixed with spring clips (supplied) pressure-mounted (on a 1 to 6 mm thick panel)	
		12 spring clips	10 spring clips
Material	Front section	Polyphenyl oxide, 10 % glass fibre (PPO GFN1 SE 1)	
	Keypad	Anti-UV treated toughened polyester (Autoflex EB AG)	
	Rear enclosure	Zinc-coated steel	
Keys	Soft keys	10 (with LED)	–
	Static keys	12 (with LED and re-usable labels)	–
	Service keys	14	–
	Alphanumeric keys	12 + 3 for alphabetical access	–
Pointing device		Yes, tactile keypad	No

Electrical characteristics

LCD screen	Type	9.5" monochrome, back-lit with 16 levels of grey	10.4" TFT 256 colours, back-lit	10.4" TFT 256 colours, back-lit with resistive analogue feedback
	Resolution	640 x 480 pixels		
Power supply	Voltage	⎓ 24 V not isolated		
	Limits	18…30 V, maximum ripple 5 %, maximum microbreaks 1 ms		
	Protection	Against polarity inversion and overloads		
	ISA bus extension	Maximum available at 12 V : 1.2 A, at 5 V : 2 A		
Consumption		80 W		

Operating characteristics

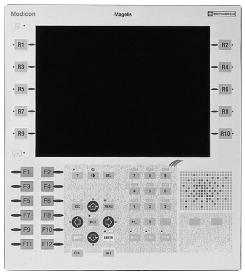
Signalling		1 communication monitoring LED and 1 keypad activity (or tactile feedback activity) LED and 11 LEDs associated with service and alphanumeric keys
Processor		80486 DX4, 100 MHz
Internal hard disk		1.6 Gb
Operating system		Windows 95 installed on the hard disk
Dynamic RAM memory		16 Mb as standard and up to 32 Mb with extension
Application memory		On hard disk or PCMCIA type II card 2, 4, 8 or 10 Mb
Dialogue application		
	Maximum no. of pages	Application, alarm, help, form and recipe pages limited by hard disk capacity Maximum 1024 alarm pages
	Curves	16 real-time curves, 16 trending curves
	Adjustment	General screens with 4 front corrector panels, supervision and adjustment screens
	OLE server	Interface with third-party software (Visual Basic, Excel, etc)
Software extension		
	PL7 Pro Dyn	PLC diagnostic functions, dynamic display of programs, etc
	Supervision	Web Client Monitor via Intranet/Ethernet TCP/IP
Connections	PLC	RS 232 C/RS 422/485 isolated serial link, downloadable communication protocols (see page 27)
	Configuration PC	Non isolated RS 232 C serial link
	Printer	Parallel link
	External keypad	PS/2 compatible link
	Bus or network	Slot for type II or III PCMCIA communication card, communication protocols (see Schneider Software Pack page 27)
	ISA bus cards	Depending on the model, two 2/3 format slots (network, TSX Premium coprocessor connection, etc)
Real-time clock		Incorporated and backed-up
Alarm relay		1 volt-free N/O contact, max 0.5 A ⎓/∿ 24 V
Connection	Power supply and alarm relay	Plug-in terminal, 5 screw terminals (5.08 mm pitch) Max clamping capacity : 1.5 mm²
	PLC	High-density female 26-way SUB-D connector and **T CCX CB 10** cable with female 25-way SUB-D connector (PLC side)
	Configuration PC	Male 9-way SUB-D connector
	Printer	Female 25-way SUB-D connector
	External keypad	8-way mini-DIN connector

Magelis graphic stations

References

Characteristics : page 22
Dimensions : page 31

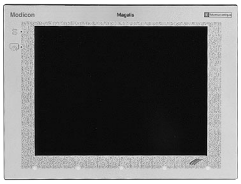
Graphic stations with keypads



T XBT F024●10●

Downloadable exchange protocol	Type and size of screen	Supply voltage V ⎓	Number of ISA bus slots	Reference (1)	Weight kg
See page 27	Monochrome 9.5"	24	–	**T XBT F023310●**	5.100
			2 (2/3 format)	**T XBT F023410●**	5.500
	Colour 10.4"	24	–	**T XBT F024310●**	5.100
			2 (2/3 format)	**T XBT F024410●**	5.500

Graphic stations with touch-sensitive screens



T XBT F034●10●

Downloadable exchange protocol	Type and size of screen	Supply voltage V ⎓	Number of ISA bus slots	Reference (1)	Weight kg
See page 27	Colour 10.4"	24	–	**T XBT F034310●**	4.800
			2 (2/3 format)	**T XBT F034410●**	5.200

Separate parts

Description	Use	Reference	Weight kg
Development software	Under Windows 95 or NT 4.●, for downloading the application and protocols	See page 27	–
PCMCIA type II memory cards	Application memory	See page 28	–
PCMCIA type III communication cards	Bus and industrial networks connection	See page 28	–
Connecting cables	Serial link, Uni-Telway bus, configuration terminal, printer, etc connection	See page 29	–
Sheets of labels	Labels for function keys	See page 28	–

Documentation

Description	Format	Included in the product	Language	Reference	Weight kg
User's manual for TXBT graphic stations (2)	A5 bound	T XBT F0●●●10F	French	**T XBT DM00F**	0.500
		T XBT F0●●●10E	English	**T XBT DM00E**	0.500

(1) The T CCX CB 10 cable (length 0.2 m, fitted with 2 x 25- and 26-way SUB-D connectors) is included as standard. Add the suffix **E** for an English version of Windows 95 and English documentation to be supplied with the product, and the letter **F** for a French version of Windows 95 and French documentation to be supplied with the product.
(2) For documentation in German, Spanish and Italian, consult our Regional Sales Office.